Out of Basin Transfer Subcommittee Recommendations

RECOMMENDATIONS

Not enough data currently exists in Rhode Island to adequately assess the impact of existing water uses (or OOBTs), nor to evaluate the potential impacts of proposed uses. A water allocation plan, coupled with a new management framework is necessary to justify future water allocation decisions. Once reasonable estimates have been made of the long-term water needs within geographic water accounting areas, and after minimum stream flow requirements have been established, then a permit system can be implemented for water and wastewater. Indirectly, this regulatory measure can be used to control export of water from one accounting area to another, or from one sub-basin to another within a single accounting area.

Water use planning needs to occur in tandem with land use planning. Water use planning needs to occur at the basin level and consider the regional and local context. Any new process must acknowledge existing authorities, laws, regulations and plans while promoting regional solutions. Any new program must be efficient, have a reasonable period for phase-in, foster cooperation and information sharing and thus, enable reliable and consistent decisions.

Regulatory Management Measures

1. Develop a centralized water withdrawal registry to provide data on public and private groundwater and surface water use.

2. Develop a statewide water use permit system that recognizes maintenance of minimum stream flows with out-of-basin transfer as a key criterion. The permit system would be managed at the basin level to fairly allocate water and control over-development of available supplies, beginning with those river basins underlain by major ground-water reservoirs. A permitting system would address water withdrawals, water use and wastewater discharges, and incorporate both water quantity, as well as water quality, considerations. During phase-in of the permit system, estimated to be a multiyear period, new or expanded OOBTs for both groundwater and surface water should be discouraged, other than for emergency purposes.

   Suggested Combined Water/Wastewater Permit Criteria
   - Water and wastewater quantity thresholds for proposed uses
   - Safe yield within the geographic water accounting area
   - Strong evidence of conservation and optimum use of the water resource. Conservation measures can be improvements in water transmission and water use efficiency, reduction in water use, enhancement or reuse of return flows for storm water and wastewater.
   - Water quality considerations that maintain the chemical, physical and biological integrity of the water resource
   - Conformance to federal, state and local plans
   - Consideration of environmental, economic and social impacts on both source and recovery basins
   - Stressed basins: where demand for water exceeds, or is projected to exceed, safe yield
     - Existing and proposed out-of-basin transfer of water
     - Stream flow standards
     - Areas of critical environmental concern (ex: fisheries, wetlands, wildlife habitat)
     - Development potential within each basin; designated growth areas
     - Special use areas - scenic sites, historically or archaeologically significant sites
     - Other socio-economic factors, including priority uses and equity considerations

3. Establish a statewide pre-application review process for all development projects that meet a certain, gallons per day of water threshold and satisfy certain environmental, economic and social criteria.

The pre-application review process would be conducted by formal, multi-disciplinary teams. Pre-application review for "significant" projects would include a greater level of impact assessment than for "insignificant" projects. (See Other Areas to Explore, P. 3.)

- Insignificant projects would be those that require less than some, established, water threshold; have no significant impact on the geographic water accounting area, yet satisfy certain environmental, economic and social criteria.

- Significant projects would be those that require greater than some, established, water threshold and deemed "significant" from a geographic water accounting area standpoint. The impact assessment process would be more comprehensive to satisfy environmental, economic and social criteria. (The process could be similar to RI CRMC's "Assent" process for development which occurs in areas protected by Special Area Management Plans.)

- Examples of significant uses:
  - New or expanded public water supply or wastewater treatment facilities
  - Highly consumptive uses, such as agriculture and power generation
  - Certain development projects

4. Coordinate with provisions in the state's Comprehensive Planning and Land Use Regulation Act and RI Zoning Enabling Act to provide for sustainable development of water resources on a basin level. Upon passage, local ordinances must be made consistent with state laws.

5. Review existing written sales agreements between public water suppliers, whether instate or interstate and provide for new agreements as necessary.

Nonregulatory Management Measures Including Decision Support Tools

- Based on findings from the water use and availability studies, identify geographical accounting water areas and prepare a statewide Water Allocation Plan. Rank areas according to the need for allocation.
- Maintain financial support of the existing USGS stream gage network in Rhode Island and review the need for additional gages to effectively monitor minimum flows of perennial streams.
- Encourage routine monitoring of stream levels by entities withdrawing water
- Support funding to develop methods for determining low flow statistics for perennial streams at locations other than at gages.
- Support development of computer models of river basins to simulate proposed water development and management strategies.
- Determine an accurate method to calculate OOBT for each basin considering future water demand. Calculate a mass balance of water inputs (precip, transfers into basin) and outputs (withdrawals, evaporation) for both water and wastewater.
- Identify wastewater distribution systems (public and private) where lost water from inflow and infiltration occurs; where cost effective, implement/enforce a program of leak detection and repair.
- Implement public information programs to promote water conservation, use of water conserving devices, and industrial and commercial recycling and reuse.
- Provide funding for water audits and technical assistance.
- Integrate and maintain financial support for various computerized, water databases such as NEWUDS.
- Implement rate structures that reflect the costs of operation, proper maintenance, proposed capital improvements, and water conservation.
- Revise DEM's Facilities Plan Review Checklist.

Other Areas to Explore

The Out-of-Basin Transfer Committee notes several areas where either more research is necessary, or more time for sufficient discussion by the full Water Allocation Program Advisory Committee. Some of these items were brought up in committee while others were listed on the RI Water Works Assn. paper, Flow Allocation Policy Position (2002).

- Need for a state environmental assessment mechanism such as NEPA (National Environmental Policy Act) – institute as part of statewide pre-application review process
- Cheaper methods of gauging streams and wells
- Aquifer storage and recovery
- Alternative storage reservoirs for water supply, such as quarries
- Dredging to increase reservoir storage capacity (streamline permit process)
- Increase offline storage (flood skimming)
- Increase capture of storm water
- Use raw water to augment low flows in certain streams
- Special Water Management Areas which may require more stringent management plans
- Require historic water use data prior to permitting significant increases in use of existing resources
- Restore water supply sources for emergency use if not drinking water standards